

The Professionalism of Vocational Teachers in Central Java and Yogyakarta

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Abstract

This study aimed (1) to create a measurement instrument of the professionalism of vocational teachers, (2) to determine the level of professionalism of vocational teachers in Central Java and Yogyakarta. The research used descriptive quantitative method. The population is vocational teachers in the Central Java province and Special Region of Yogyakarta. The samples are 341 vocational teachers which come from 10 vocational schools. The data analyzed used descriptive statistic and histogram. This research has succeeded in making instruments to measure the professionalism of vocational teachers. The instrument consists of four aspects, namely pedagogic competence, personal competence, social competence, and professional competence. The instrument refers to Law No. 14 of 2005 concerning the Law of Teachers and Lecturers and the Ministry of Education Regulation No. 16 of 2007. The finding of this research shown that the level of pedagogic competence is good (74.61%), personal competence is *veri* good (81.77%), social competence is very good (81.55%), and professional competence is good (76.79%). The level of professionalism of vocational teachers in Central Java and Yogyakarta is good (78.68%).

Keywords: *teacher's professionalism; vocational teachers; measurement of professionalism*

Background

The vocational education in Indonesia entered a new phase with the issuance of Presidential Instruction No. 9 of 2016 concerning Revitalization of Vocational High Schools (SMK). The Presidential Instruction was issued because the Indonesian nation faced global challenges due to the Industrial Revolution 4.0 in the 21st Century. The big waves of the Industrial Revolution 4.0 breed extraordinary and powerful disruptive technology and make new life turbulence, and increasingly global competition. SMK revitalization is expected to boost the quality of Indonesian workers (Kemendikbud, 2016).

Data from the Central Statistics Agency (Badan Pusat Statistik) issued in May 2017 shows that the Open Unemployment Rate (Tingkat Pengangguran Terbuka) for the age of 15 years and above is based on educational background, SMK graduates occupy the highest position, which is 9.84%. Second place is 7.22% of Diploma I / II / III graduates, 6.95 percent of high school graduates. Data from the Ministry of Manpower in 2017 shows that data on open unemployment from high school graduates is 19.74%. The high percentage of unemployed vocational school graduates can be interpreted as a lack of secondary education skills to enter the workforce. Teacher professionalism has an important role in determining student success. The success of student learning is part of the impact of adequate ownership of teacher competencies in the teaching and learning process. The success of student learning can be seen from the quality or changes shown by students after participating in learning, so that it can be assessed through the extent to which student learning needs can be fulfilled optimally by the teacher.

The vocational school graduates' competency standards besides having implications for the curriculum and textbooks also have implications for the competency test of vocational students (Bambang, 2017). Therefore, there needs to be alignment between the material studied by vocational students and competency test material conducted by the Professional Certification Institute (Lembaga Sertifikasi Profesi) under the coordination of the National Professional Certification Agency (Badan Nasional Sertifikasi Profesi). The standard of graduate competence in vocational secondary education units aims to improve intelligence, knowledge, personality, noble character, and skills to live independently and follow further education in accordance with vocational training.

The high unemployment coming from vocational schools, while the specific purpose of vocational schools is to prepare students to be able to work, either independently or fill jobs in the business and industrial world, shows that the purpose of the vocational school has not been achieved. The achievement of the goals of the Vocational High School has made a separate evaluation for the institution to identify what factors caused it to occur. Looking at this phenomenon, there are several factors that cause this to happen, including teacher professionalism in delivering material, both theoretically and practically, which is not relevant to the needs of the workforce or the industrial world.

Alignment and updating of the SMK curriculum prioritizes the suitability of technological developments and conformity with the real needs of the business and industrial world (Dunia Usaha Dan Industri). The government has also supported industrial cooperation programs by involving the role of vocational teachers through multiple expertise programs supported by industry internship programs for productive teachers and guest teachers from industry. Increasing employment of vocational graduates will be encouraged through granting certification of graduate competencies through the One-Party Professional Certification Institute (Lembaga Sertifikasi Profesi Pihak Satu). In addition, the expansion of teaching factories in vocational schools is designed to encourage innovation and productivity of vocational school graduates.

The SMK revitalization strategy is one of them by increasing the professionalism of vocational school teachers. Referring to the Law of the Republic of Indonesia (RI) No.14 of 2005 concerning Teachers and Lecturers, Article 1 paragraph (1) explicitly explains that Teachers are professionals with the main task of educating, teaching, guiding, directing,

training, evaluating and evaluating students in school-age education in the path of formal education, basic education, and secondary education. The characteristics of professional teachers according to Law No.14 of 2005, Article 1 paragraph 1 include: (1) Having pedagogic competence, namely the ability of teachers to manage learning related to planning learning, implementing learning, assessing learning outcomes, conducting guidance and training in extracurricular activities, as well as carrying out additional tasks mandated by educational institutions. (2) Having personality competency, this is related to a strong personality, noble character, wisdom, authority and an example for students. (3) Having professional competence, which involves mastering learning material widely and deeply. As an educator in a particular field, it is an obligation to master the material related to the field of task being taught. If a teacher does not master the material broadly and in depth, how can it be able to understand the learning problems faced in school (4) Have social competence, which is about the ability of teachers to communicate and interact with students, fellow teachers, guardians of students, and the community. The ability to communicate well reveals one of the determinants of one's success in the life of communication and interaction that is expected to arise between teachers and students in relation to close and friendly interactions.

Since the role of the teacher and the context of teaching have changed, new resources (knowledge, skills, and attitudes) are required to practise the profession. Certification in a given trade is no longer the sole qualification needed in order to be considered competent to teach. To qualify, teachers must acquire the more complex competencies that underlie the new professionalism of the teaching profession (Quebec, 2002). One of the focuses of vocational revitalization is also carried out in terms of educators and education personnel, especially teachers. In addition to availability, revitalization also targets improvements in teacher competence. The Ministry of Education and Culture has mapped the capacity of teachers through competency tests. The results of the teacher competency test (Uji Kompetensi Guru) shown the teacher professional average of 38.46 in 2015 and 66.05 in 2016 (Kemendikbud, 2017). Identification of how far the level of professionalism of Vocational High School teachers is important to see how far the readiness of Vocational Teachers implements the revitalization of Vocational Schools. A reliable instrument is needed to measure the level of professionalism of vocational teachers.

Literature Review

1. Competency Standards for Vocational Teachers

Vocational schools are held aiming to produce graduates who are ready to work, skilled, and competitive. In other words, vocational schools equip their students with certain skills so that later after completing education can compete both as workers in the business and industries and as entrepreneurs. Vocational education (education for earning living) emphasizes education that adapts to demand driven. The link between the graduates of education users and education providers and the match between employees and employer is the basis for the implementation and measure of the success of vocational education. The success of the implementation of vocational education can be seen from the level of quality and relevance, namely the number of graduates' absorption and the suitability of the field of work with the areas of expertise chosen and practiced.

The many demands of the business and industry for workers continue to increase. The need for workers' skills and abilities is a major challenge for the world of education. The existence of compatibility between the industrial world and the world of vocational education must be relevant, where vocational students must be required to master more basic competencies that must be in accordance with current work needs.

In the context of standard-based education, improving the quality of vocational teachers begins with the development of standards. The vocational teacher competency standards must be made separately which is different from the high school teacher competency standards. Vocational secondary education has characteristics that are very different from general secondary education. Vocational graduates are prepared to work in the business and industrial world, while high school graduates are prepared to continue their studies. Therefore, it is necessary to develop teacher competency standards in accordance with the characteristics of vocational secondary education.

Competence is an absolute requirement for teacher professionalism. Under Law no. 14 Year 2005 regarding Teachers and Lecturers article 10 verse 1 states that professional teachers have pedagogic competence, personality competence, social competence, and professional competence.

- 1) Pedagogic competence involves the ability to manage learning. Learning management is intended not to be separated from the main tasks that must be done by the teacher. These tasks involve: Planning learning, implementing learning, and assessing learning outcomes. In addition to the main tasks in the management of learning, teachers also conduct guidance and training in extracurricular activities, as well as carrying out additional tasks mandated by educational institutions.
- 2) Personality competence concerning a strong personality, noble, wise, authoritative and an example for students.
- 3) Professional competence concerns the mastery of subject matter widely and in depth. As an educator in a particular field, it is an obligation to master the material related to the field of task being taught. If a teacher does not master the material widely and in depth, how can it be able to understand the learning problems faced in school. Therefore, to be a professional in the field of assignment, you must learn the development of knowledge related to it.
- 4) Social competence concerns the ability of teachers to communicate and interact with students, fellow teachers, guardians of students and the community. The ability to communicate well is one of the determinants of one's success in life. Communication and interactions that are expected to arise between the teacher and students are related to friendly and friendly interactions. Thus, students are expected to have openness with their teachers.

2. *Professionalism of Vocational School Teachers*

Professionalism is fitness between bureaucratic-competence abilities and ask-requirements (Korten & Alfonso, 1985). Characteristics of professionalism: 1) The desire to always display behavior that can be used as a good reference, 2) Trying to improve and maintain professional behavior through the realization of professional behavior. The

manifestation is carried out through various methods such as how to look, how to speak, the use of language, body posture, and the attitude of his daily life.

Profession can literally be interpreted by a job that requires certain skills and skills, where expertise and skills are obtained from a special education or training. A profession may define most simply as a vocation which is organized, incompletely, no doubt, but genuinely, for the performance of function (Hamalik, 2004). Vocational teachers' productive groups in general have academic requirements that are not different, that is education is S1 or D4, have pedagogical competence, personality, professional and social. However, teachers have a productive program characteristics and requirements (competency) of a specific professional, namely, among others: 1) having adequate practical skills in all fields of study (subjects) productive; 2) capable of holding (training) with the relevant competencies needed by the world of work; 3) ability to design learning (training) in schools and in the business or industry (Mappaloteng, 2014).

These characteristics are as far-sighted, able to bear the risk, energetic, creative, innovative, responsible, keeping promises, do not give up and some more. This fact is often associated with success in applying personality leadership teachers in their professionalism. Excellent teachers show features such as: 1) commitment to high professional, 2) experts in all fields, existing common experience, 3) ability to teach the main ideas and content subjects, 4) ability to manage students, 5) the ability to work with students, colleagues and parents, 6) able to treat the development of social and cultural values, 7) demonstrate commitment (Muhammad & Jaafar, 2015).

In order to foster innovative work behaviour it is important to understand the individual requirements of professionals for these activities. Professionalism can be broken down into three constructs:

a. *Professional knowledge*

The role of knowledge for performance was repeatedly emphasised in research on expertise. A common distinction divides knowledge into declarative and procedural knowledge, into know-what and know-how (Messmann et al., 2010). With regard to occupational knowledge this distinction refers to codified facts and concepts of the occupation and to rules and conditions of the practical application of this knowledge. Some researchers stressed the role of metacognitive knowledge, i.e. knowledge about oneself and one's knowledge as well as about tasks, cognitive strategies, actions and their regulation. With regard to teachers, distinction between content knowledge, pedagogical knowledge and curriculum knowledge underlines the importance of different kinds of knowledge in this domain. In sum, professional knowledge can be separated into three core dimensions: 1) occupational knowledge as a basis for standard professional performance in a specific domain, 2) metacognitive knowledge as a requirement for self-regulation, 3) workplace knowledge as a prerequisite for actions and interactions at work

b. *Professional performance*

Successful performance depends on self-regulation in order to set goals and to plan and monitor one's actions. Characteristics of good teaching are often based on normative performance standards that include high capabilities for problem-solving, improvisation or decision-making, self-regulation and context sensitivity. Taken

together, professional performance can be separated into three core dimensions: 1) Occupational performance as the sum of one's standard occupational actions, 2) self-regulation as all activities to plan and monitor actions, 3) collaboration as all interactive activities at work.

c. Professional development

As organisational structures and work tasks are changing, professionals cannot rely on their knowledge and performance standards, but have to continue developing as professionals. Professionals have to keep in touch with the knowledge and performance standards of their particular domain. Moreover studied teachers' activities in professional development communities and emphasised that attempts to maintain and expand social relations at work are important for professional growth as well as for educational change. In sum, three core dimensions of professional development can be distinguished: 1) occupational learning, including activities to update occupational knowledge and performance standards and the growth of competences, 2) reflection on experiences in order to plan future actions, 3) social expansion containing the intensification of existing and the establishment of new social relations at work.

Teacher professional development and development includes fostering pedagogical, personal, social, and professional competencies. According to PP No. 74 of 2005 concerning Teachers mandates that there are two lines of guidance and development of the teaching profession, namely: professional development and guidance, and career development and development. Coaching and development of vocational teacher professions as follows:

a. Vocational teacher training through supervision

Teaching supervision is a series of activities to help teachers develop their ability to manage the teaching and learning process for the achievement of teaching goals.

b. Vocational teacher training through training

The function of training in the organization is as all activities designed to improve the performance of personnel in a job where the person is being or will be appointed to serve a particular job. Education and training for the development of human resources including professional development and performance of education personnel is very important, well managed

c. Training of vocational teachers through further education

The development of teachers' professional abilities through advanced education is a form of guidance by providing opportunities for teachers to continue their education at a higher level. This advanced education can be done on its own initiative with permission from superiors or can also be through learning assignments from superiors.

Methodology

This study used a quantitative approach. Based on the existing problems, this study is included in the descriptive research category. This study examines the extent of the professionalism of vocational teachers in Central Java Province and Special Region of

Yogyakarta. This research is limited to expressing real conditions in the field about the professionalism of vocational teachers in Central Java and Yogyakarta.

This research was carried out in Central Java Province and Special Region of Yogyakarta. When this research was carried out, it was calculated from the planning, implementation, and making of this report, starting from May to July 2018.

The population of this study is vocational schools in Central Java Province and Special Region of Yogyakarta. The research sampling used purposive sampling technique. The samples of this study were 10 Vocational Schools in Central Java Province and Special Region of Yogyakarta: SMK Penerbangan Kabupaten Purworejo, SMK YPE Sawunggalih Kabupaten Kutoarjo, SMK TKM Kabupaten Purworejo, SMA N 1 Playen Kabupaten Gunungkidul, SMK 1 Kabupaten Purworejo, SMKN 5 Yogyakarta, SMK YPT Kabupaten Purworejo, SMK Pancasila 1 Kabupaten Purworejo, SMK PN-PN2 Kabupaten Purworejo, dan SMK Kota Yogyakarta.

Data collection techniques in this study used a questionnaire. The research questionnaire was arranged using 5 alternative assessments, namely: (1) never/very low, (2) rare/low, (3) sometimes/medium, (4) often/high, and (5) always/very high. The professionalism assessment of vocational school teachers in this study used self-assessment method.

Data analysis in this study uses descriptive statistics. Descriptive statistical techniques are used to describe the professionalism of vocational teachers in Central Java and Yogyakarta Special Region. Statistical data is presented in percentages and histograms. The steps of analytical activities in this study are as follows: 1) calculating percentages, 2) determining categories, 3) presenting data using bar charts, 4) interpreting and analyzing the data already presented, 5) making conclusions.

Findings and Discussion

According to Law No. 14 of 2005 concerning the Law of teachers and lecturers, it is explained that teacher competencies include pedagogic competence, personal competence, social competence, and professional competence. Competency standards for vocational school teachers are more detailed in the Ministry of Education Regulation No. 16 of 2007. This study has succeeded in compiling instruments to measure the professionalism of vocational school teachers. This instrument consists of 4 aspects, namely pedagogic competence, personality competence, social competence, and professional competence.

Aspects of pedagogic competence consist of ten assessment indicators, namely mastering the characteristics of students from the physical, moral, spiritual, social, cultural, emotional, and intellectual aspects, mastering learning theory and the principles of learning that educate, developing curricula related to subjects be taught, organize learning that educates, utilize information technology and communication for the sake of learning, facilitate the development of the potential of students to actualize various potentials possessed, communicate effectively, empathetically, and politely with students, conduct assessment and evaluation of learning processes and outcomes, utilize assessment and evaluation results for the benefit of learning, and to conduct reflective actions to improve the quality of learning.

The personality competency of a teacher includes an assertive personality, noble character, wisdom, authority and is able to be an example for students. Assessment of professional aspects in this study was determined by five assessment indicators. These indicators include: the ability of the teacher to master the material, structure, concepts, and scientific mindset that supports the subject matter, mastering the competency standards and basic competencies of the subjects. The aspect of social competence is measured by the ability of teachers to communicate and interact with students, fellow teachers, and parents of students and the community.

The number of schools used as research samples was as many as 10 Vocational Schools. The list of school names that are the research sample is as follows:

No	Vocational School (SMK)
1	SMK Penerbangan Purworejo
2	SMK YPE Sawunggalih Kutoarjo
3	SMK TKM Purworejo
4	SMKN 1 Playen Gunungkidul
5	SMK 1 Purworejo
6	SMKN 5 Yogyakarta
7	SMK YPT Purworejo
8	SMK Pancasila 1 Purworejo
9	SMK PN-PN 2 Purworejo
10	SMK Kota Yogyakarta

The results of research based on each competency can be explained as follows.

1. *Pedagogic competence*

Pedagogic competence concerns the ability to manage learning. The intended learning management cannot be separated from the main tasks that must be done by the teacher. These tasks involve: planning learning, implementing learning, and assessing learning outcomes. In addition to the main tasks in managing learning, the teacher conducts guidance and training in extracurricular activities, as well as carrying out additional tasks mandated by the institution.

Descriptive analysis of pedagogic competencies at vocational school in Central Java and Yogyakarta are as follows:

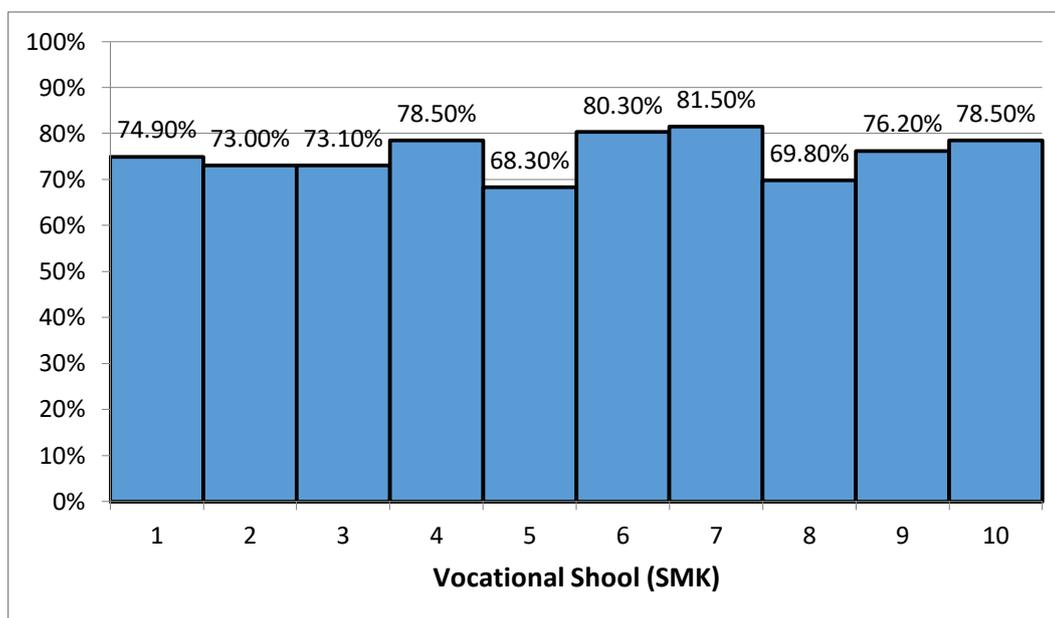


Figure 1. Pedagogic competence

The highest achievement for determining the professionalism of vocational teachers in Central Java and Yogyakarta, based on pedagogic competence is SMK YPT Purworejo Regency, which is 81.5%, while schools that achieve the lowest pedagogic competence are SMK 1 Purworejo, which is 68.3%. There are two Vocational Schools that have achieved a level of pedagogic competence of more than 80%, namely SMK 5 Yogyakarta and SMK YPT Purworejo (*figure 1*). The percentage of high pedagogic competencies in SMK YPT Purworejo can be caused by the majority of teachers having the ability to carry out and implement structuring (time required) well, and have high motivation, so that in providing learning can be maximized and professional in accordance with the fields under their control (Hartiningtyas et al., 2016). Pedagogic competencies that must be possessed by educators include having the ability to carry out and implement (a) structuring (setting the time required) with the division, namely introduction doing apperception as much as 10% of the entire appearance time, core with 80% of the total; and time closure or closure is 20%; (b) motivating and reinforcing, (c) conducting discussing small group activities, (d) conducting individual activities, (e) providing for feedback, (f) presenting informations, (g) utilizing inductive or problem solving, (h) questioning and responding, dan (i) ability to operate hardware.

The scores of achievement of pedagogic competencies in vocational teachers in Central Java and Yogyakarta have an average of 74.6%. This shows that the pedagogic competence of teachers has a good achievement even though it is still not optimal. The results of the study are in line with the results of the study Bakar (2018) shows the professional teachers of vocational schools in Padang had good qualifications in pedagogical competence, professional competence, social competence, and personal competence, the learning process of vocational schools in Padang was going well and in general, student achievement was at a good level of performance, and there was a

significant influence of professional teachers on vocational school students' achievement in Padang.

The high achievement of pedagogic professional competence shows that teachers are able to understand the characteristics of learners relating to physical, moral, spiritual, social, cultural, emotional, and intellectual aspects. The ability of teachers to understand these students makes students easier to understand the material delivered by the teacher, because the teacher will know more about the potential possessed by students. With this in mind, the teacher will be able to prepare more for the initial learning of students in the subject they are taught, so that it will minimize the difficulties that will be experienced by students.

The assessment of pedagogic competence is also related to the mastery of learning theory and the principles of educating. A teacher who has a pedagogic who will understand the learning theory and the principles of educating learning related to the subject being taught. Teachers will be better able to apply various approaches, strategies, methods and learning techniques that educate and be creative in the subjects they are taught, master learning theories and principles of learning that are educational.

The success of teachers' pedagogic competencies is inseparable from curriculum development related to subjects. To be able to develop the curriculum the teacher must be able to understand the principles of curriculum development, and know the purpose of learning. Teachers need to determine learning experiences that are appropriate to achieve the learning objectives being taught. Teachers must be able to choose, organize and develop learning materials in accordance with the characteristics of the students so that learning will be more easily accepted and understood by students.

2. Personality Competence

The personality competency which is related to a strong personality, noble character, wise, authoritative, and an example for students. Personality refers to the formation of an individual's overall psychological same as TVET teachers. It covers various aspects such as attitudes, interests, ideals, values, sentiment, and temperament, intelligence, knowledgeable, ethical, honest, kind, responsible and trustworthy in the performance of duties as a teacher. TVET is important for a teacher to have personality characteristics that are effective in shaping TVET students who have characteristics global, patriotic, skilled and able to work in an industry that is growing rapidly (Muhammad & Jaafar, 2015). The results of descriptive analysis of vocational personality competencies in Central Java and Yogyakarta are as follows:

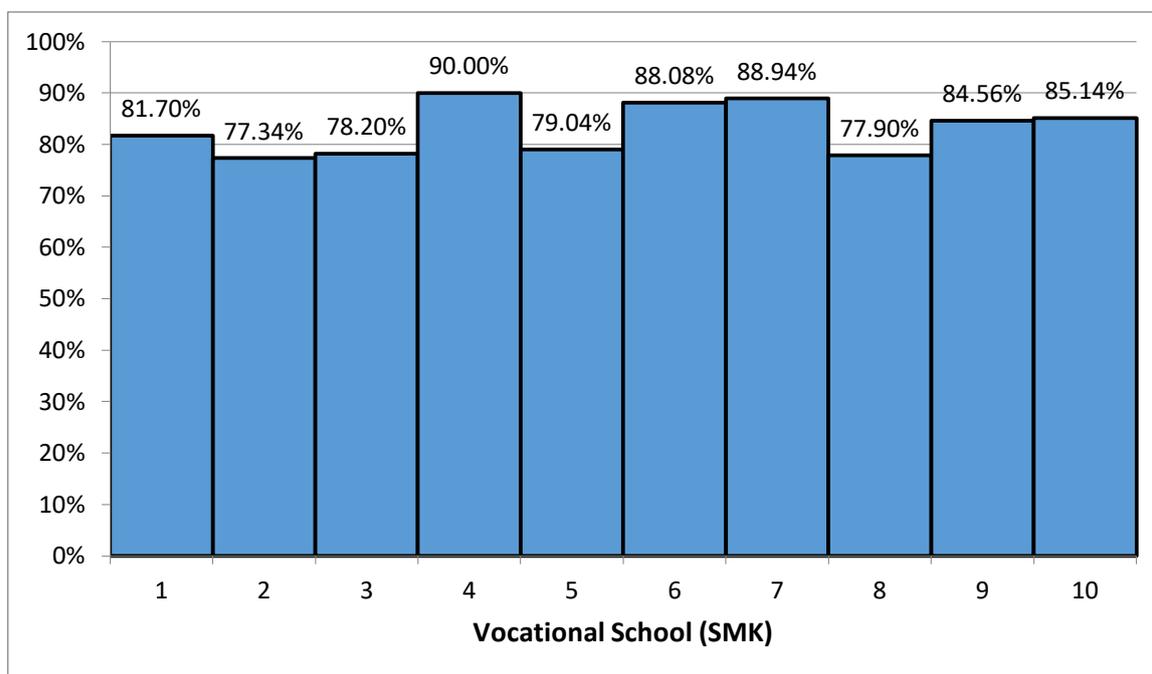


Figure 2. Personality Competence

The achieving the personality competencies of vocational teachers in Central Java and Yogyakarta, the highest is SMK N 1 Playen, Gunungkidul, which is 90%. Schools that obtained the lowest personal competence scores were YPE Sawunggalih Vocational Schools in Kutoarjo Regency, which amounted to 77.34%. There are six schools with a personal competence level of more than 80%, namely: SMK Penerbangan Purworejo, SMKN 1 Playen Gunungkidul, SMKN 5 Yogyakarta, SMK YPT Purworejo, SMK PN-PN 2 Purworejo, and SMK Kota Yogyakarta (*figure 2*). The high competency of teachers at SMK 1 Playen was allegedly caused by the teacher's qualifications and teaching experience that had been able to fulfill the competence of teachers for many years. Some other factors that need to be considered are the ability to convey knowledge, communication skills, knowledge of subject matter and the achievement of professional development (Karpati, 1995).

Overall the professionalism of teachers in Central Java and Yogyakarta, judging from the personality competency has good value. This can be seen from the 10 schools that were the research sample, overall having achieved an average score above 81.8%. The high achievement of teacher's personality competence shows that the personality possessed by teachers in Central Java and Yogyakarta, is in accordance with the personality of a teacher. A teacher is a mirror for students, so the teacher must be able to show good personality. The teachers, who have good personalities, will always provide good examples, not just governing their students. With the personality exemplified by the teacher, students will be more reluctant and respect the teacher.

3. Social Competence

The social competence measured the ability of teachers to communicate and interact with students, fellow teachers, parents of students, and the community. The results

of descriptive analysis of social competencies at vocational teachers' in Central Java and Yogyakarta are as follows:

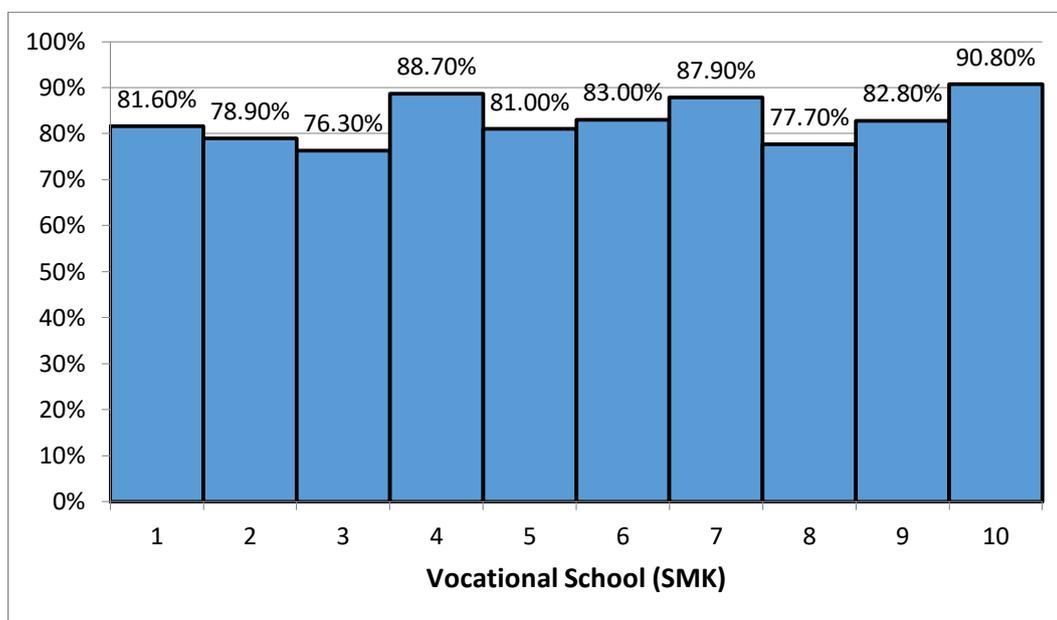


Figure 3. Social Competence

The highest average social competency score was achieved by teachers at SMK 1 Playen Gunungkidul, which amounted to 88.7%. Schools that received the lowest social competency scores were SMK TKM Kabupaten Purworejo, which amounted to 76.3%. There are only three schools that have social competence scores below 80%, namely: SMK YPE Sawunggalih Kutoarjo, SMK TKM Purworejo, and SMK Pancasila 1 Purworejo (*figure 3*). A higher social competence in SMK 1 Playen Gunungkidul can be caused by the teachers in the school who are able to communicate and interact effectively with students. Teachers are able to communicate and interact effectively with fellow educators and parents (Hartiningtyas et al., 2016).

Overall the social competence of vocational teachers in Central Java and Yogyakarta is in the very good category. This can be seen from the 10 schools that are the research sample, overall have achieved an average score above 81.5%. Social competence is basically only limited to the ability of teachers to communicate and interact. Nonetheless, the ability of teachers to communicate and interact with these plays an important role in determining teacher professionalism, this is because communication is the most important communication tool in teaching and learning activities. The ability of teachers to communicate and interact is not limited to students and teachers, but also to fellow teachers, parents and the community. Communication and expected interaction between the teacher and students is related to the interaction that is friendly and friendly, so that communication will be good, and students will have openness with their teacher.

4. Professional Competence

The professional competence relates to the mastery of subject matter widely and in depth. To become a professional in the field of duty, you must learn the development of knowledge related to it. The results of descriptive analysis of the professional competence of vocational teachers in Central Java and Yogyakarta are as follows:

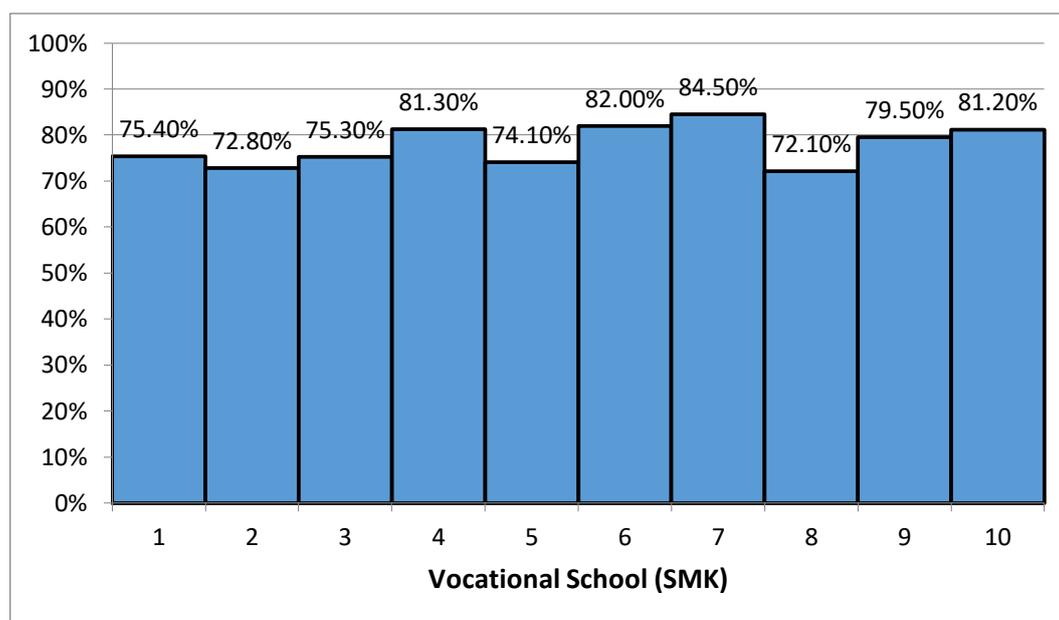


Figure 4. Professional Competence

Based on the analysis it is known that the highest achievement of professional competence is YPT SMK Purworejo Regency, which is 84.5%. The schools that obtained the lowest professional competence scores were Pancasila Vocational Schools in Purworejo Regency, which amounted to 72.1%. There are four schools with a professional competency score of more than 80%, namely: SMKN 1 Playen Gunungkidul, SMKN 5 Yogyakarta, SMK YPT Purworejo, and SMK Kota Yogyakarta (*figure 4*). The high percentage of professional competence of SMK Purworejo Regency teachers is suspected to be supported by the quality of teachers who have high expertise, responsibility and caring and strong professional ethics. To that end teachers should have adequate competence qualifications that include pedagogic competence, social competence, personality competence and professional competence. Teacher professionalism performance is basically a manifestation of professionalism of teachers consciously and directed to carry out education both at school and outside school (Tampang & Wonggo, 2017).

Competence as a notion includes more than just knowledge: it includes action, motivation, problem-solving and the learning context (Oser et al., 2009). In addition to the professional competence of teachers sourced from a talent to be a teacher education also held on teacher education plays an important role. In creating excellence in the application of leadership personality's professionalism, TVE teachers to apply theory excellence of Mclelland (Muhammad & Jaafar, 2015) have listed the characteristics needed to obtain

excellence. These characteristics are as far-sighted, able to bear the risk, energetic, creative, innovative, responsible, keeping promises, do not give up and some more. This fact is often associated with success in applying personality leadership teachers in their professionalism.

Overall the professionalism of teachers in Central Java and Yogyakarta, seen from professional competence has good value. This can be seen from the 10 schools that are the research sample, overall having achieved an average score above 76.8%. In addition, teachers are also able to develop learning materials that are taught creatively, develop professionalism on an ongoing basis by doing reflective actions, and are able to utilize information and communication technology to develop them.

In a modern era, a teacher must be able to utilize information and communication technology in communicating, and developing themselves. This is because at this time the development of technology is increasingly rapid, so that teachers must also be able to keep up with or keep up with the times, so that they can attract and facilitate students in receiving and understanding the material presented.

5. *Professionalism of Vocational School Teachers*

Teacher professionalism in this study has an understanding of the nature that must exist in a teacher in carrying out his work so that the teacher can carry out his work with full responsibility and is able to develop his skills without disturbing the teacher's main tasks. Teacher professionalism in this study is determined by 4 indicators, namely pedagogic competence, personality competence, professional competence, and social competence.

The results of the analysis showed that the highest achievement of Professionalism of Vocational High School teachers in Central Java and Yogyakarta was SMK N 1 Playen, Gunungkidul Regency, which amounted to 86.9%. The school that received the lowest teacher professionalism was the Pancasila Vocational School in Purworejo Regency, which amounted to 74.5%. There are five schools with more than 80% teacher professionalism, namely: SMKN 1 Playen Gunungkidul, SMKN 5 Yogyakarta, SMK YPT Purworejo, SMK PN-PN 2 Purworejo, and SMK Kota Yogyakarta (*figure 5*).

The results of descriptive analysis of vocational teacher professionalism in Central Java and Yogyakarta are as follows:

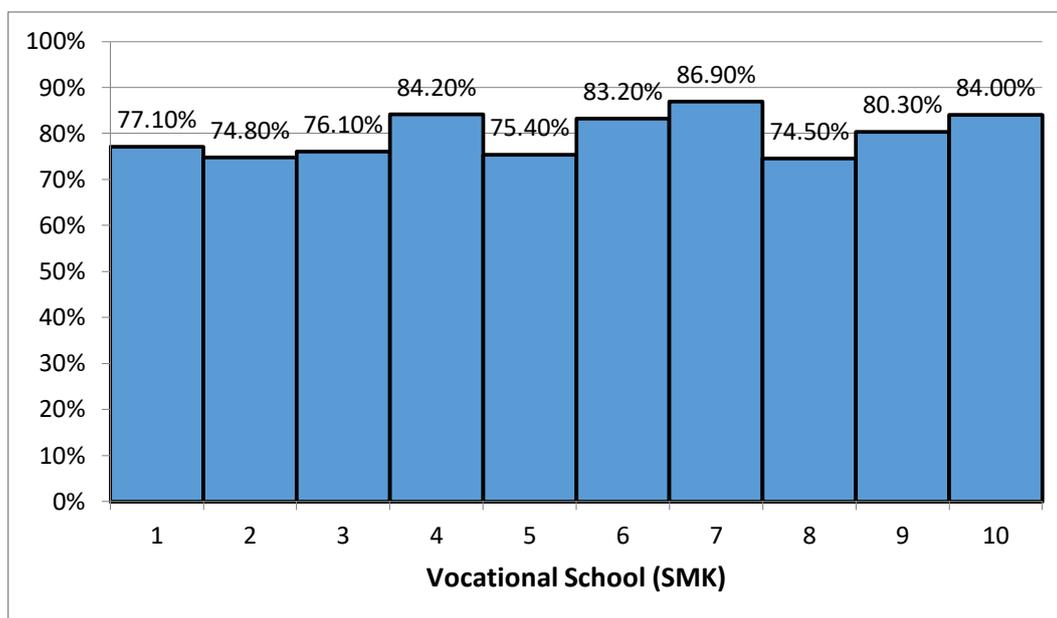


Figure 5. Professionalism of Vocational School Teachers

More research based knowledge among future teachers is one of their main arguments on how to improve teaching and learning in the schools. A preliminary conclusion seems to be: Higher education and research based knowledge are two main factors in the concept of professionalism and professionalization (Aakre et al., 2011). The institutions are the environments that need to allow for the teachers' knowledge and skills to be enacted quite autonomously, but they should also manifest the cooperation between different specific profiles of vocational teaching expertise. Policies developed to cultivate and underpin the professionalization of vocational teachers are often associated with high-level structural considerations, which are seen in particular public indicators such as the level of teacher education or payment. This view is in danger of overlooking the importance of the concrete working conditions of teachers in TVET institutions and the specific demands in vocational education (Grollmann, 2008).

Determination of teacher professionalism in this study is based on four aspects of assessment, namely pedagogical aspects, aspects of personality, social aspects, and professional aspects of the teacher. Of the four aspects of the assessment, it shows that overall teachers in Central Java and Yogyakarta have good assessment achievements. Teacher professionalism in Central Java and Yogyakarta, including in the good category. This can be seen from the 10 schools that were the research sample, overall achieving an average score above 78.6%. The study Messmann *et al.*, (2010) showed that characteristics of professionalism are positively related to innovative work behaviour. Aspects of professional development like occupational learning and social expansion were particularly important. Metacognitive knowledge and reflection that represent the metacognitive dimension" of professionalism were considered as crucial. The respondents underlined that when due to changes at work a substantial amount of innovations is required, life-long learning is strongly needed as a part of professionalism.

Conclusion

This research has succeeded in making instruments to measure the professionalism of vocational teachers. The instrument consists of four aspects, namely pedagogic competence, personal competence, social competence, and professional competence. The instrument refers to Law No. 14 of 2005 concerning the Law of Teachers and Lecturers and the Ministry of Education Regulation No. 16 of 2007. The finding of this research shown that the level of pedagogic competence is good (74.61%), personal competence is very good (81.77%), social competence is very good (81.55%), and professional competence is good (76.79%). The level of professionalism of vocational teachers in Central Java and Yogyakarta is good (78.68%).

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